## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4, 6-14 and 20 are rejected under 35 U.S.C. 102(b or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawamura et al US 6,344,499 or Galimberti et al. US 2003/0109625.

4. Claims 1, 4, 6-10, 12-14 and 20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ichikawa et al. US 2004/0014876.

5. The rejections set forth under 35 USC 102/103 in the paper mailed 12/16/08 are deemed proper and are herein repeated. Applicant's newly amended claims, remarks and support documentation have been fully considered.

6. Applicant has amended the claims so as to limit the enzymes to amylase and/or cellulase. It is alleged that the prior art uses protease in combination with the cellulase and/or amylase so as to decompose the proteins. There is no mention of using the cellulase and/or amylase to decompose glucans. Further, the pH is adjusted to 9-10 in the art. This is the pH at which the protease is most effective in deproteinizing the rubber. The supporting documentation shows the activity of the amylase and cellulase to be 10% or less at a pH of 9. Applicant concludes that the treatment of the latex by an alkaline protease in combination with cellulase and/or amylase would not result in the decomposition of the glucans given the Residual Activity of the amylase and the cellulase is 10% or less at the pH reported in the art. This is not persuasive.

7. The claim language reads "glucans contained in the latex are decomposed" and that the treatment of the latex with the cellulase and/or amylase is "for the decomposition of the glucans." The claims do not recite a degree to which the glucans are to be decomposed or any amount of the glucans to be decomposed. The claims read upon any glucan decomposition effected by the cellulase and/or amylase. It is reasonable to conclude that some degree of glucan decomposition is effected by the amylase and/or cellulase given the Residual Activity of up to 10%. The claims are seen to be anticipated understanding that any degree of glucan decomposition effected by the amylase and/or cellulase reads on the claims as drafted.

8. The arguments directed to the unexpected results as shown in the specification have been fully considered. These are insufficient in rebutting the prima facie case of obviousness. It is alleged that the latex having been treated with the amylase and/or cellulase has better properties than a latex that has not been subjected to treatment with the amylase and/or cellulase. This is not persuasive. The art shows treatment of the latex with amylase and/or cellulase. The comparison in the specification does not represent the closest prior art. Further, the showing in the specification does not support the breadth of the claims. There are conditions and species used in the specification that are not reflected in the claimed composition.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/
Primary Examiner, Art Unit 1796